

CLAIMS

1. Disk brake with
 - a brake disk (4) that has a preferred direction of rotation (D);
 - a first brake pad (2) with a first center of gravity (S1) on a first side of the brake disk (4);
 - a second brake pad (3) with a second center of gravity (S2) on a second side of the brake disk (4);
 - a caliper (1) for transmitting the braking forces generated by the second brake pad (3) to the first side of the brake disk (4), with a first caliper arm (1.1) on the first side of the brake disk (4), a second caliper arm (1.2) on the second side of the brake disk (4), and a connecting device (1.3, 1.4) for joining the first caliper arm (1.1) with the second caliper arm (1.2); and
 - a clamping device (5), which has a center axis (N) perpendicular to the brake disk (4) and is designed to force the first brake pad (2) against the brake disk (4); wherein
 - the second center of gravity (S2), both in the position of rest of the brake and when the brake is actuated, is offset relative to the first center of gravity (S1) by a predetermined

first distance (V) in the direction of a brake disk run-out side corresponding to the preferred direction of rotation (D) of the brake disk (4), and

-- the second caliper arm (1.2) is offset relative to the first caliper arm (1.1) by a predetermined second distance (W) in the direction of the brake disk run-out side, characterized by the fact that

-- the connecting device (1,3, 1.4) is radially closer to the brake disk (4) on the brake disk run-out side than on a brake disk run-in side, at least in the region in which it spans the brake disk (4).

2. Disk brake in accordance with Claim 1, characterized by the fact that the two centers of gravity (S1, S2) have the same radial distance from the center axis (M) of the brake disk (4).

3. Disk brake in accordance with Claim 1 or Claim 2, characterized by the fact that an offset (V) of the second center of gravity (S2) relative to the first center of gravity (S1) in the direction parallel to the brake disk (4) is based at least partially on an offset of the second brake pad (3) relative to the first brake pad (2) parallel to the brake disk (4).

4. Disk brake in accordance with any of the preceding claims, characterized by the fact that the center axis (N) of the clamping device (5) passes through the first center of gravity (S1).

5. Disk brake in accordance with any of the preceding claims, characterized by the fact that the area of the second caliper arm (1.2) that rests against the second brake pad (3) is rotationally staggered relative to the area of the first caliper arm (1.1) that rests against the first brake pad (2).

6. Disk brake in accordance with any of the preceding claims, characterized by the fact that the area of the second caliper arm (1.2) that rests against the second brake pad (3) is rotated about the axis of rotation (M) of the brake disk (4) relative to the area of the first caliper arm (1.1) that rests against the first brake pad (2).

7. Disk brake in accordance with any of the preceding claims, characterized by the fact that the connecting device (1.3, 1.4) has an opening (9) in the area that spans the brake disk (4).

8. Disk brake in accordance with Claim 7, characterized by the fact that the opening (9) extends over the first and/or

second brake pad (2, 3) in the projection parallel to the brake disk (4).

9. Disk brake in accordance with Claim 7 or Claim 8, characterized by the fact that the contour of the opening (9) is more or less that of a parallelogram.

10. Disk brake in accordance with Claim 7 or Claim 8, characterized by the fact that, in the projection parallel to the brake disk (4), the opening (9) has a concave contour on the brake disk run-in side and a more or less linear contour on the brake disk run-out side, and that this more or less linear contour forms an acute or obtuse angle (α) with the plane of the brake disk.

11. Disk brake in accordance with any of Claims 7 to 9, characterized by the fact that the opening (9) in the projection parallel to the brake disk (4) has a concave contour on both the brake disk run-in side and the brake disk run-out side.

12. Disk brake in accordance with any of Claims 7 to 11, characterized by the fact that the part (1.4) of the connecting device (1.3, 1.4) that is located on the brake disk run-out side with respect to the opening (9) has a smaller cross section in a plane parallel to the brake disk (4) than the part (1.3) of the connecting device (1.3, 1.4) that is located on the brake disk

run-in side.

13. Disk brake in accordance with any of the preceding claims, characterized by the fact that the outer contours (1.5. 1.6) of the caliper (1) on the brake disk run-in side and the brake disk run-out side are more or less parallel to each other and preferably perpendicular to the plane of the brake disk.

14. Disk brake in accordance with any of the preceding claims, characterized by a plate-shaped support structure (6).

15. Disk brake in accordance with any of the preceding claims, characterized by the fact that it is pneumatically and/or electromotively actuated.

16. Disk brake in accordance with any of the preceding claims, characterized by the fact that it is a brake for use in commercial vehicles.